

# **Local Hazard Mitigation Plan ANNEX**

## **Town of Corte Madera**

### **Introduction**

The Town of Corte Madera is a small-sized town in Marin County, California. The Town has a population of 9,100 people, based on the 2000 census<sup>1</sup>. Town's budget for fiscal year 2004-2005 was \$21,591,000. The Town employs 55 people. While the Town provides fire and emergency medical services, law enforcement is provided through a joint powers agreement with the neighboring Town of Larkspur.

### **The Planning Process**

This process of preparing this plan was familiar to the Town of Corte Madera. The Town has a Safety Element to its General Plan that is in the process of being updated in 2006 that includes a discussion of fire, earthquake, flooding, and landslide hazards. In addition, the Town routinely enforces the requirements of the California Environmental Quality Act (CEQA) requirements (which, since 1988, have required mitigation for identified natural hazards). The Town's effort has focused on building on these pre-existing programs and identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

Many of the activities conducted by the Town were fed into the planning process for the multi-jurisdictional plan. The Town participated in various ABAG workshops and meetings, including the general "kick-off" meeting. In addition, the Town has provided written and oral comments on the multi-jurisdictional plan. Finally, the Town provided information on facilities that are viewed as "critical" to ABAG.

Key Town staff members have reviewed mitigation strategies appropriate to their department and prioritized them as appropriate for the Town. Staff involved in this process included the Planning Director / Assistant Town Manager, Building Official, Assistant Public Works Director, the Fire Chief and the Deputy Fire Chief. The resolution adopting the plan and strategies were on the Town Council agenda for February 7, 2006

### **Hazard and Risk Assessment**

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). These hazards also impact this community, except for surface faulting. Surface faulting is not a hazard in the Town of Corte Madera because no active faults are located in the Town.

Information on disasters declared in Marin County is at <http://quake.abag.ca.gov/mitigation/disaster-history.html>.

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<sup>1</sup> For complete Census information on this Town, see <http://www.bavareacensus.ca.gov/>.

The Town examined the hazard exposure of Town urban land based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 1,510 urban acres in the Town,

- ◆ Earthquake faulting – No active faults run within the Town so rupture of a fault is not a direct concern.
- ◆ Earthquake shaking – the entire town is in the strong to violent categories of shaking potential, in large part because the San Andreas fault runs through the western portion of Marin County.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the Town of Corte Madera. However, because few areas have been mapped as landslides, this hazard is viewed as similar to that posed by weather-related hazards.
- ◆ Earthquake liquefaction – the entire town is in areas of high, or very high liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis may be a hazard in the Town of Corte Madera, the mapping of the inundation area has not been completed at this time.
- ◆ Flooding – 403 acres are in the 100-year flood plain, while an additional 8 acres are in the 500 year flood plain area.
- ◆ Landslides – 908 acres are in areas of existing landslides.
- ◆ Wildfires – Marin County has developed a mapping procedure for evaluating wildfire threat throughout the county. The result is a map and list of parcels located in the Wildland-Urban Interface (WUI) area. Of the 3,678 parcels in the Town of Corte Madera, 1,664 parcels (821 acres) are located in the WUI.
- ◆ Dam Inundation – 5 acres are subject to dam inundation.
- ◆ Drought – all 1,510 acres are subject to drought.

The Town also examined the hazard exposure of infrastructure based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 50 miles of roadway in the Town,

- ◆ Earthquake faulting – No active faults run within the Town so rupture of a fault is not a direct concern.
- ◆ Earthquake shaking – all of the roadways are in the strong to violent categories of shaking potential.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the Town of Corte Madera. However, this is unlikely to be an issue because no roads are in existing landslide areas.
- ◆ Earthquake liquefaction – all of the roadways are in areas of high or very high liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis may be a hazard in the Town of Corte Madera, the mapping of the inundation area has not been completed at this time.
- ◆ Flooding – 12 miles of roadway are in the 100-year flood plain.
- ◆ Landslides – 32 miles of roadway are in areas of existing landslides.
- ◆ Wildfires – 33 are in the wildland-urban interface area.

- ◆ Dam Inundation – no roads are in an area subject to dam inundation.
- ◆ Drought – is not a hazard for roadways.

Finally, the Town examined the hazard exposure of critical health care facilities, schools, and Town-owned buildings based on the information on ABAG's website at

<http://quake.abag.ca.gov/mitigation/pickerit.html>. Of the critical facilities in the Town,

- ◆ Earthquake faulting – No active faults run within the Town so rupture of a fault is not a direct concern.
- ◆ Earthquake shaking – all critical facilities are in the strong to violent categories of shaking potential.
- ◆ Earthquake-induced landslides – The California Geological Survey has not completed mapping of this hazard in the Town of Corte Madera. However, this is unlikely to be an issue because no roads are in existing landslide areas.
- ◆ Earthquake liquefaction – One school, 44 Town facilities and 4 bridges are in high, or very high liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis may be a hazard in the Town of Corte Madera, including to critical facilities, the mapping of the inundation area has not been completed at this time.
- ◆ Flooding – 2 schools, 22 Town facilities and one bridge are in the 100-year flood plain.
- ◆ Landslides – All but 3 critical facilities are in areas of no or few landslides. Three Town facilities are in existing landslides areas.
- ◆ Wildfires – Two private schools are located in the wildland-urban interface area.
- ◆ Dam Inundation – Two Town critical facilities are in an area subject to dam inundation.
- ◆ Drought – Drought will not affect Town buildings directly. However, the Town does not operate a water-supply distribution system.

There are 5 repetitive loss properties in the Town, with 12 claims totaling \$234,683 based on the information at <http://quake.abag.ca.gov/mitigation/pickflood.html>.

The Town plans to work with ABAG during 2006 to improve the risk assessment information being compiled by ABAG by providing information on unreinforced masonry buildings and soft-story apartments located in the Town.

Drought, though a potential problem in the Town, is not fully assessed. The Town will work with ABAG and various water supply agencies on this issue.

The Town plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted. The ABAG Annex states that ABAG will be doing this work in 2005 through early 2006.

As these impacts are not fully developed, the Town has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that

earthquakes (particularly shaking), flooding, wildfire, and landslides (including unstable earth) pose a significant risk for potential loss.

## **Mitigation Activities and Priorities**

As a participant in the ABAG multi-jurisdictional planning process, Town of Corte Madera staff helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. Key Town staff members have reviewed mitigation strategies applicable to their department and prioritized them as appropriate for the Town. Staff involved in this process included the Planning Director / Assistant Town Manager, Building Official, Assistant Public Works Director, the Fire Chief and Deputy Fire Chief. The tentative decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage.

Over time, we are committed to developing better hazard and risk information to use in making those trade-offs. We are not trying to create a disaster-proof region, but a disaster-resistant one. In addition, several of the strategies are existing Town programs.

Corte Madera has a considerable wildland urban interface problem. The risk is very high, and the likelihood of an event is great. Roughly half of the parcels in town are in the interface area. This includes single & multiple family residential property, infrastructure and critical facilities. The areas with the greatest problem were developed fifty or more years ago. Roadways are of substandard width and grade; invasive, non-native species are prolific and are in close proximity to structures which are constructed with older, less fire resistive materials. The town is in the process of adopting an Urban Wildland Interface code to deal with new construction projects. However, most property in town is already built out; therefore a program to mitigate the hazard from existing property is needed. This will be an extraordinary task requiring funding well in excess of local resources.

## **The Plan Maintenance and Update Process**

The Town Manager's Office will ensure that *monitoring* of this Annex will occur. The plan will be monitored on an on-going basis. However, the major disasters affecting our community, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used. Finally, the Annex will be a discussion item on the agenda of the meeting of Town department heads at least once a year in April. At that meeting, the department heads will focus on *evaluating* the Annex in light of technological and political changes during the past year or other significant events. This group will be responsible for determining if the plan should be updated.

The Town of Corte Madera is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The Fire Chief will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the Town again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other

agencies will be contacted, including the County's Office of Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The *public* will continue to be involved whenever the plan is updated, and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, the Town will provide the opportunity for the public to comment on the updates. A public notice will be posted prior to the meeting to announce the comment period and meeting logistics.